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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,094	04/23/2004	Joseph Emmerich	P07374US01/BAS	7703

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EXAMINER	
FORD, VANESSA L	
ART UNIT	**PAPER NUMBER**
1645	

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/830,094	EMMERICH ET AL.	
	Examiner	Art Unit	
	Vanessa L. Ford	1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/18/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

Priority

1. Applicant's claim for foreign priority based on the French application, 99 036 12 filed on March 23, 1999, it is noted that the Office has not received a certified copy of the French application as required by 35 U.S.C. 119(b). Therefore, priority to French application, 99 036 12 is not granted.

Sequence Requirements

2. This application contains sequences that have not been identified. See page 9 of the instant specification. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 C.F.R. § 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 C.F.R. §§ 1.821-1.825. Full compliance with the sequence rules is required in response to this office action. A complete response to this office action should include both compliance with the sequence rules. Failure to fully comply with *both* these requirements in the time period set forth in this office action will be held non-responsive.

Claim Objection

3. Claims 1-5 should be the subject of a complete sentence. Therefore, the claims should began with "I claim", "We claim" or What is clamed is". Correction is required.

The Examiner is viewing "venous thromboembolic disease" to mean the same as "vascular embolization" since Stedman's Online Medical Dictionary, 27th Edition defines vascular as pertaining to blood vessels or indicative of a copious blood supply and Stedman's Online Medical Dictionary, 27th Edition also defines embolization as the formation and release of an embolus into the circulation. It should be noted that Stedman's Online Medical Dictionary, 27th Edition defines an embolus as a plug composed of detached thrombus, vegetation, mass of bacteria or other foreign body occluding a vessel.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method for treating venous thromboembolic disease wherein a prophylactically or therapeutically effect amount of an agent active on bacteria of the *Chlamydia* genus in combination with a pharmaceutically acceptable carrier is administered to a patient requiring such a treatment does not reasonably provide enablement for a method for preventing venous thromboembolic disease wherein a prophylactically or therapeutically effect amount of an agent active on bacteria of the *Chlamydia* genus in combination with a pharmaceutically acceptable carrier is administered to a patient requiring such a treatment. The specification does

not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The specification teaches that venous thromboembolic disease is a multifactor disorder with both genetic and acquired risks (page 1). The specification teaches that after taking in to account conventional acquired risk factors and genetic predispositions at least a third of venous thrombotic episodes remain unexplained (page 1). The specification teaches that anti-*Chlamydia pneumoniae* antibodies represent a risk factor for venous thromboembolic disease (page 2).

The teachings of the cited art regarding venous thromboembolism as they relate to the claimed invention are cited below:

Vakenta et al *(Rozhl Chir, 2000, Jan; 79(1):3-8)* teach that venous thrombosis still remains one of the most serious problems in medicine (see the abstract). Journycake et al *(Hematol Oncol Clin North Am., 2004 Dec; 18(6):1315-38)* teaches that in order to prevent thrombosis and its sequelae it is necessary to develop appropriate strategies for diagnosis and acute and long-term management of thromboembolic events (see the Abstract). Journycake et al teach that there are many unanswered questions in regards to thrombosis (see the Abstract). Douketis et al *(Haemostasis, 1995, Jan-Apri;25(1-2):58-71)* teach that accurate diagnosis is required to identify patients with deep vein thrombosis (DVT) who would benefit from appropriate anticoagulant therapy (see the Abstract). Douketis et al teach that the diagnosis of DVT during pregnancy is problematic (see the Abstract). Emmerich (*Pathophysiology of*

Haemostasis and Thrombosis, September –December 2022, Vol. 32, No. 5-6., p. 346-348) teaches that at least one third of thrombotic episodes remain after conventional and acquired risk factors are considered (page 346). Emmerich teaches that there is a serological relationship between *Chlamydia pneumoniae* and venous thrombosis (see the Abstract). Emmerich teaches that a serological link between *Chlamydia pneumoniae* and venous thrombosis does not establish a causal relationship because it fails to show whether *C. pneumoniae* infection precedes the disease or whether the microorganism is present within the vessel wall (page 347). Gibbs et al (*Br. J Surg, 1998, 85:1191-7)* teach that whether antibiotics are of use in altering or slowing vascular disease progression is not known (page 1195). Gibbs et al teach that antibiotics such as tetracycline and macrolides aid in the treatment of venous thrombosis (1195). However, tetracycline is also an inhibitor of the matrix metalloproteinases which are produced by macrophages which can lead to plaque fissuring and rupture (page 1195). Gibbs et al also teach that protection of thrombosis by macrolides is given by the decrease of coagulability of the blood (page 1195). Gibbs et al teach that a wide range of endpoints need to be addressed to determine the whether drug therapy van benefit patients by offering protection against recurrent episodes of thromobosis (page 1195).

Factors to be considered in determining whether undue experimentation is required are set forth in In re Wands 8 USPQ2d 1400. They include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state

of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art and (8) the breadth of the claims.

There is lack of enablement for a method of preventing venous thromboembolic disease in a patient because the cited art has taught that a) venous thromboembolic disease remains a major problem in medicine, particularly in pregnant women, b) it is necessary to develop appropriate strategies for diagnosis and acute and long-term management of thromboembolic events, c) there is a serological link between *Chlamydia pneumoniae* and venous thrombosis, but establishment of the causal relationship fails to show whether *C. pneumoniae* infection precedes the disease or whether the microorganism is present within the vessel wall and d)it is unknown whether antibiotics are useful in altering or slowing vascular disease progression.

Therefore, one of skill in the art could not reasonably conclude that active agents against bacteria such as antibiotic are not be effective in preventing venous thromboembolic disease in patients, because they have only effective in lowering the risk of venous thromboembolic disease. However, the use of antibiotics to reduce venous thromboembolic disease is not without side-effects.

It is determined that there is limited guidance provided in the specification with respect to how to use the claimed method to prevent venous thromboembolic disease since the cited prior art has taught that antibiotics can be used to only to treat thromboembolic events. The skilled artisan is forced into undue experimentation to practice (make and use) the invention as is broadly claimed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5 are rejected under 35 USC 112 second paragraph for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims recite "... prophylactically or therapeutically effective amount of an agent...". It is unclear as to what the applicant is referring. What amount is prophylactically or therapeutically effective? Clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as anticipated by Saikku et al *(WO 90/00061 published January 11, 1990).*

Claims 1-5 are drawn to a method of preventing and/ or treating venous thromboembolic disease wherein a prophylactically or therapeutically effective amount of an agent active on bacteria of the genus *Chlamydia* genus in combination with a pharmaceutically acceptable carrier is administered to a patient requiring such a treatment.

Saikku et al teach a method of treating patients suffering from heart infarctions which include (vascular embolization) by administering to these patients antibiotics against organisms of the genus *Chlamydia* (pages 2, 6-7 and 16, claim 7). Saikku et al teach that the new name for *Chlamydia* species strain TWAR is *Chlamydia pneumoniae* (page 3). Saikku et al teach that the antibiotics used to treat *Chlamydia* infections (including infections caused by *C. pneumoniae*) include tetracyclines, erythromycin (a macrolide antibiotic), rifampicillin and fluoroquinolenes (page 7).The claim limitation "pharmaceutically acceptable carrier" would be inherent in the prior art since the prior art teaches that that antibiotics are administered in a pharmaceutical (page 7). The clam limitation "... intended for the prevention of recurrences subsequent to a first venous thrombosis" is taught in the prior art since the prior art teaches that higher dosages of antibiotics and combinations of antibiotics are required for longer treatment from chlamydial infections (page 7).

Since the Office does not have the facilities for examining and comparing applicant's method with the method of the prior art, the burden is on the applicant to show a novel or unobvious difference between the claimed method and the method of the prior art (i.e., that the method of the prior art does not possess the same material method steps and parameters of the claimed method). See In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and In re Fitzgerald et al., 205 USPQ 594.

Status of Claims

7. No claims are allowed.

Pertinent Prior Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (Lozinguez et al (Circulation, Vol. 100, No. 18 SUPPL., p. I327, 72nd Scientific Sessions of the American Heart Association, Atlanta, GA, USA, November 7-10, 1999).

Conclusion

9. Any inquiry of the general nature or relating to the status of this general application should be directed to the Group receptionist whose telephone number is (703) 308–0196.

Papers relating to this application may be submitted to Technology Center 1600, Group 1640 by facsimile transmission. The faxing of such papers must conform with the notice published in the Office Gazette, 1096 OG 30 (November 15, 1989). Should applicant wish to FAX a response, the current FAX number for the Group 1600 is (703) 872-9306.

Any inquiry concerning this communication from the examiner should be directed to Vanessa L. Ford, whose telephone number is (571) 272-0857. The examiner can normally be reached on Monday – Friday from 9:00 AM to 6:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynette Smith, can be reached at (571) 272-0864.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov./>. Should you have questions on access to the Private PAIR system, contact the Electronic business Center (EBC) at 866-217-9197 (toll-free).

Vanessa L. Ford
Biotechnology Patent Examiner
September 8, 2005

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